

# Master-Slave Local Oscillator Porting Between Radio Integrated Circuits

## Abstract

A technique to share a local oscillator signal between two radio frequency integrated circuits (RFICs). The local oscillator signal generated internally by one RFIC is ported to the other RFIC for use in transmit and/or receive operation. The local oscillator signal that is ported may be an RF local oscillator signal. Each RFIC may include a bi-directional port circuit that can be operated to make the RFIC a master, slave or may be totally disabled to disable the porting feature. This is particularly useful in RFICs that are used to communicate using MIMO radio algorithms which rely for optimum performance on phase and frequency coherency among a plurality of transmitters and a plurality of receivers.